

**Butterflies through Binoculars, A Field Guide to Butterflies in the Boston, New York, Washington Region.**—Jeffrey Glassberg. 1993. Oxford University Press, New York, x + 160 pp., 40 color plates and facing legends. Available in both hardcover (ISBN 0-19-507982-5) and softcover (ISBN 0-19-507983-3).

Butterfly watching, or “butterflying” as the author of this small innovative book refers to it, has constantly gained adherents and currency since 1974 with the publication of Robert Michael Pyle’s “Watching Washington Butterflies,” a photographic field guide to the butterflies of Washington State. Roger Tory Peterson has stated that butterflying is at the same stage that birding was when his first field guides appeared. A great increase in the popularity of butterflying is anticipated over the coming decades. This book will have been one of the contributing factors.

Most recent butterfly guides have devoted some or even most of their attention to butterfly watchers and photographers but none has done so as completely as the book under review. Jeffrey Glassberg’s well written and accurate book on butterflies of the “Bos-Wash” urban corridor brings in some new firsts. On the inside covers are black silhouettes of representative butterflies from the seven families covered. Scientific names with authors are given with the species accounts but only common names are mentioned elsewhere in the text. Identification characters are more or less limited to those than can be observed in the field. A number of characters usable in the field, but not mentioned in earlier treatments, were developed by Dr. Glassberg and fellow members of the New York Butterfly Club.

The coverage of species is virtually complete; I am aware of only a few vagrant species that were omitted. These include the Early Hairstreak (*Erora laeta*), Acmon Blue (*Plebejus acmon*), and the Northern Pearl Crescent (*Phycoides selenis*).

The species accounts are tight and well organized; only the overuse of initializations mars their usefulness. Each account includes size (given relative to some common butterfly), identification, habitat, range (including total range), flight period and abundance (including known dates for each of the major urban areas), major foodplant, and comments.

The color plates, with one exception, are comprised of color photos of butterflies taken in nature. Most are good to excellent photos, but a few are blurry. These photos when accompanied by the text will allow the observer to identify almost all of the butterflies in the area covered. Unfortunately, a few photos are misidentified: Plate 17, Figure 4 is the Green Comma (*Polygonia faunus*), not *Polygonia progne* and Plate 22, Figure 3 is the Appalachian Brown (*Satyroides appalachia*), not *Satyroides eurydice*. Plate 28, Figure 3 is a photo of a female of the *Pyrgus communis* complex taken in the Lower Rio Grande Valley of south Texas and is not identifiable to species, since genitalic examination or presence or absence of a costal fold are needed to identify the three members of the complex found in that area.

There are several useful appendices following the species accounts. These include a guide to butterfly sites in the area covered by the guide, dates of appearance of New York area butterflies, phenograms for New York area butterflies, a checklist of butterflies treated, a listing of butterfly clubs and societies, butterfly count areas and contacts, a glossary, and list of references.

I recommend this book for the libraries and field sacks of all readers who live in

the area covered. The usefulness of the book declines as one travels away from the coverage area. Elsewhere in the eastern U.S. other books such as the recent Peterson Field Guide should be referenced.—*Dr. Paul A. Opler, National Biological Survey, 1201 Oak Ridge Drive, Suite 200, Fort Collins, Colorado 80525.*

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**A Functional Biology of Parasitism: Ecological and Evolutionary Implications.**—G. W. Esch and J. C. Fernandez. Chapman and Hall, Cambridge, 1993. ISBN 0 412 39910 5; 337 pp., 81 figs.

There has been a steadily growing interest in the role of parasites in ecological and evolutionary studies during the latter half of this century. This interest has been encouraged by the search for rigorous approaches to the issues of historical associations (coevolution) of hosts and parasites and the related historical ecology, microevolutionary arms race scenarios between hosts and parasites, the relationships between parasites and sexual selection of their hosts, the Red-Queen hypothesis, and the ecological constraints surrounding parasite and host community structures. Parasites have become so compelling as research subjects, in fact, that “A Functional Biology of Parasitism” by Esch and Fernandez will be found on book store shelves alongside, and in competition with, other recent works such as “Phylogeny, Ecology and Behaviour” and the just released “Parascript” both by Brooks and McLennan as well as “Natural Enemies” by Crawley and “Bird-Parasite Interactions” by Loye and Zuk. The strengths of “A Functional Biology of Parasitism” are primarily in the field of host-parasite community structure and dynamics. Those interested in phylogenetic or biogeographical aspects of parasite biology should, however, look elsewhere as these are dealt with in only a cursory way by Esch and Fernandez.

The Introduction may well dissuade many from going on and reading the rest of the book as it jumps straight into helminthology, moving from one specific example to the next rather than priming the reader with a few generalizations about parasite biology. This is unfortunate as it does a disservice to the contents that follow. Little is given up by moving quickly to the second chapter, Population Concepts, and perhaps reading the last chapter, the Summary, before deciding whether to proceed. The most valuable contribution made by the authors is that chapters 3 through 7 serve as an unrivaled compilation of case studies of helminth parasite population biology and a valid attempt to summarize elements of modern ecological theory within a parasitological framework. Moreover, the perspectives of infra-, meta-, and suprapopulations are maintained throughout, not only in the text but in the graphical representations of life cycles. Some factors that play fundamental roles in the life-histories and transmission dynamics of helminths are addressed (Chapter 3), as are factors involved in host population structure (Chapter 4). With respect to the latter, the authors provide a useful digression into the origins of modern methodology with Crofton’s early approaches to parasite regulation of host populations leading into the more realistic approaches of May and well-designed investigations by Scott. Unfortunately, the naive reader might be left with the expectation that parasites are known